CLAIMS

1. A rubber composition which comprises, per 100 parts by mass of a polymer, 10 to 200 parts by mass of silica and 1 to 30 parts by mass of a silane compound having sulfur atom represented by average structural formula (I):

$${\rm (R^{1}O)_{3-p}(R^{2})_{p}Si-R^{3}-S_{m}-R^{4}-S_{m}-R_{3}-Si(R^{2})_{p}(OR^{1})_{3-p}} \qquad \cdots (I)$$

wherein R¹ and R² each represent a hydrocarbon group having 1 to 4 carbon atoms, R³ represents a divalent hydrocarbon group having 1 to 15 carbon atoms, p represents an integer of 0 to 2, m represents a number of 1 or greater and smaller than 4, which may be an average of numbers, and R⁴ represents a divalent functional group represented by one of following general formulae (II) to (IV):

$$S-R^5-S$$
 ... (II)
 $R^6-S_x-R^7$... (III)
 $R^8-S_y-R^9-S_x-R^{10}$... (IV)

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wherein R⁵ to R¹⁰ represents a linear or branched divalent hydrocarbon group having 1 to 20 carbon atoms, a divalent aromatic group or a divalent organic group having a hetero atom which is not sulfur atom or oxygen atom, R⁵ to R¹⁰ may represent a same group or different groups, and x, y and z each represent a number of 1 or greater and smaller than 4, which may be an average of numbers.

2. A rubber composition according to Claim 1, wherein m represents 1 in average structural formula (I) representing the silane compound having sulfur atom.

3. A rubber composition according to Claim 1, wherein x, y and z each represent a number of 2 or greater and 3 or smaller, which may be an average of numbers, in general formulae (III) and (IV) representing the divalent functional group.

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- 4. A rubber composition according to Claim 1, wherein R⁴ represents a divalent functional group represented by general formula (IV) in average structural formula (I) representing the silane compound having sulfur atom.
- 5. A rubber composition according to Claim 1, wherein, in average structural formula (I) representing the silane compound having sulfur atom, R⁴ represents a divalent functional group represented by general formula (IV) in which R⁸, R⁹ and R¹⁰ each represent hexylene group.
- 6. A rubber composition according to Claim 1, wherein a purity of the silane compound having sulfur atom is 60% or greater at a time when the silane compound having sulfur atom is mixed to form the rubber composition.
- 7. A rubber composition according to any one of Claims 1 and 2, wherein, at a time when the silane compound having sulfur atom is mixed to form the rubber composition, a content of silane compounds having sulfur atom and three or more silicon atoms in one molecule is 30% by mass or smaller of the rubber composition.

- 8. A rubber composition according to any one of Claims 1 to 7, wherein a BET surface area of the silica is 40 to 350 m^2/g .
- 5 9. A rubber composition according to any one of Claims 1 to 8, wherein the polymer is a diene-based rubber.
 - 10. A tire which comprises a member comprising a rubber composition described in any one of Claims 1 to 9.
 - 11. A tire according to Claim 10, wherein the member is a tire tread.

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